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DOI: <https://doi.org/10.1007/s12024-013-9454-2>

Posted at the Zurich Open Repository and Archive, University of Zurich

ZORA URL: <https://doi.org/10.5167/uzh-82144>

Journal Article

Published Version

Originally published at:

Ruder, Thomas D; Flach, Patricia M; Thali, Michael J (2013). Virtual autopsy. Forensic Science, Medicine, and Pathology, 9(3):435-436.

DOI: <https://doi.org/10.1007/s12024-013-9454-2>

Virtual autopsy

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Accepted: 3 May 2013 / Published online: 13 June 2013
© Springer Science+Business Media New York 2013

Time for guidelines in forensic imaging

We thank the editor for giving us the opportunity to contribute to this Forensic Forum discussion and respond to Pollanen and Woodford. In their article “Virtual autopsy: time for a clinical trial” the authors suggest that forensic pathologists should critically re-evaluate their methods for medico-legal death investigations and implement cross-sectional imaging to improve the quality of post-mortem examinations [1]. Their comment raises fundamental and occasionally provocative questions regarding the value of autopsy and forensic pathology in general.

We clearly agree with the key message of this comment: post-mortem cross-sectional imaging is beneficial to forensic death investigations. We are in the favorable position that forensic pathologists in Switzerland have already embraced post-mortem cross-sectional imaging and today, all forensic institutes in this country do have access to a CT scanner for whole body post-mortem computed tomography, either within their own building or through collaboration with clinical radiologists. The Virtopsy project (www.virtopsy.com), initiated more than a decade ago, was certainly pivotal to this development. Since then more than 500 scientific, peer-reviewed articles and a number of textbooks on forensic radiology

have been published worldwide; each of them adding to the body of evidence promoting post-mortem cross-sectional imaging as an adjunct or alternative to autopsy. Post-mortem imaging prior to autopsy is now a standard practice in many institutes across the world. We strongly agree with Pollanen and Woodford, who conclude their article with a call for a large scale, multi-center, multi-national study to provide conclusive evidence regarding the potential of post-mortem imaging in forensic death investigations.

We wish to contribute to this forensic forum by discussing a different, currently undervalued aspect of forensic radiology. The increasing use of post-mortem and forensic imaging raises fundamental questions regarding quality standards, education, and best practice. To this date, there is no curriculum for radiologists and forensic pathologists to formally specialize in forensic radiology. There are no guidelines regarding image acquisition, image interpretation or image reporting. And, importantly, there are no formal requirements to professionally qualify as forensic radiologists, nor is there any certification in forensic radiology. In order to be used as alternative to autopsy in forensic death investigations, forensic radiology must adhere to highest quality standards. False claims regarding findings on post-mortem imaging from unqualified expert witnesses in court may be disastrous not only for all parties involved in a particular case, but for the entire field of forensic radiology and imaging.

The International Society of Forensic Radiology and Imaging (ISFRI) (www.isfri.org) was founded last year to address and overcome these deficiencies rapidly. The objectives of the ISFRI are to provide internationally supported guidelines, quality standards, formal education, and certification in forensic radiology and imaging. These

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goals can only be achieved through interdisciplinary and international collaboration and cooperation. Therefore we invite all interested parties to join the ISFRI and actively shape the future of forensic radiology and imaging.

References

1. Pollanen MS, Woodford N. Virtual autopsy: time for a clinical trial. *Forensic Sci Med Pathol*. doi:[10.1007/s12024-013-9408-8](https://doi.org/10.1007/s12024-013-9408-8).